AMENDMENTS TO THE CLAIMS

1.   (original) A method comprising:

    providing a memory;

    allocating the memory between a first buffer and a second buffer;

    receiving a video signal that includes video data for reconstructing an image;

    generating image data representative of the image from the video data;

    decoding control data from the video signal that specifies whether the image data is long-term data or short-term data;

    storing the image data in the first buffer when the image data is short-term data; and

    storing the image data in the second buffer when the image data is long-term data.

2.   (original) The method of claim 1 further comprising decoding data from the video signal that identifies the image data as short-term data or long-term data.

3.   (original) The method of claim 2 further comprising decoding an index from the video signal, when the image data is long-term data, that specifies a location of the second buffer, and storing the long-term data in the location.

4.   (original) The method of claim 1 further comprising decoding control data from the video signal that specifies whether the image data is to be reconstructed from a reference image in a short-term buffer or a long-term buffer, and selecting a reference image from one of a short-term buffer or a long-term buffer according to the control data.

5.   (original) The method of claim 1 further comprising reconstructing a first portion of the image using a first reference image in a short-term buffer, and reconstructing a second portion of the image using a second reference image in a long-term buffer.

6.   (original) The method of claim 1 wherein storing the image data in the first buffer includes at least one of:

    storing the image data in a first location that is unused, when an unused location exists; and

    storing the image data in a second location that contains a least recently received image data, when no unused location exists.

7.   (original) The method of claim 1 wherein the video signal includes a first parameter that specifies that the image data is long-term data and a second parameter that specifies a location of the second buffer where the image data should be stored.

8.   (original) The method of claim 1 further comprising decoding from the video signal a new allocation of the memory between one or more short-term buffers and one or more long-term buffers.

9.   (original) The method of claim 1 wherein the video signal includes at least one of a block, a group of blocks, a macroblock, or a frame.

10.   (original) The method of claim 1 further comprising detecting an error in the video data and signaling the error to an encoder on a back-channel.

11.   (original) The method of claim 1 further comprising decoding one or more variable length fields in the video signal.

12.   (original) The method of claim 1 wherein the short-term data in the first buffer is stored in a first-in-first-out manner and indexed sequentially.

13.   (original) The method of claim 1 wherein the long-term data in the second buffer is stored according to a long-term buffer index included in the video signal.

14.   (original) The method of claim 1 further comprising deallocating at least one of the first buffer or the second buffer based upon allocation data decoded from the video signal.

15.   (original) The method of claim 1 wherein the video data includes differential video data that specifies differences between the image and a reference image.

16.   (original) The method of claim 1 wherein the video data is reference data for the image, the reference data being used as the image data.

17.   (original) A computer program product comprising:

computer executable code for allocating a memory between a first buffer and a second buffer;

computer executable code for decoding a video signal that includes video data for reconstructing an image;

computer executable code for generating image data representative of the image from the video data;

computer executable code for decoding control data from the video signal that specifies whether the image data is long-term data or short-term data;

computer executable code for storing the image data in the first buffer when the image data is short-term data; and

computer executable code for storing the image data in the second buffer when the image data is long-term data.

18.   (original) A video processing system comprising:

a memory;

an allocating means for allocating the memory between a first buffer and a second buffer;

a receiving means for receiving a video signal that includes video data for reconstructing an image;

a generating means for generating image data representative of the image from the video data;

a decoding means for decoding control data from the video signal that specifies whether the image data is long-term data or short-term data; and

a storing means for storing the image data in the first buffer when the image data is short-term data, and for storing the image data in the second buffer when the image data is long-term data.

19.   (original) A method comprising:

      providing a memory;

      allocating the memory between a short-term buffer and a long-term buffer;

      storing a long-term reference image in the long-term buffer and a short-term reference image in the short-term buffer;

      receiving a video signal that includes video data for reconstructing an image;

      decoding control data from the video signal that specifies a reference image for reconstructing the image, the reference image being at least one of the short-term reference image or the long-term reference image; and

      generating image data representative of the image from the video data and the reference image.

20.   (original) A method comprising:

      providing a memory;

      allocating the memory between a short-term buffer and a long-term buffer;

      storing a long-term reference image in the long-term buffer and a short-term reference image in the short-term buffer;

      receiving a video signal that includes video data for reconstructing an image;

      decoding first control data from the video signal that specifies a reference image for reconstructing the image, the reference image being at least one of the short-term reference image or the long-term reference image;

      generating image data representative of the image from the video data and the specified reference image;

      decoding second control data from the video signal that specifies a buffer for storing the image data, the specified buffer being at least one of a second short-term buffer or a second long-term buffer; and

      storing the image data in the specified buffer.

21.   (original) A method comprising:

      providing a memory;

      allocating the memory between a short-term buffer and a long-term buffer;

      storing a long-term reference image in the long-term buffer and a short-term reference image in the short-term buffer;

      receiving a video signal that includes video data for reconstructing an image;

      decoding control data from the video signal that specifies a reference image for reconstructing the image, the reference image being at least one of the short-term reference image or the long-term reference image; and

      generating image data representative of the image from the video data and the reference image.

22.   (original) A decoder comprising:

      a memory;

      a buffer allocation decoder configured to allocate the memory between a long-term buffer and a short-term buffer;

      a video input that receives a video signal that includes video data for reconstructing an image;

      a picture decoder that generates image data representative of the image from the video data; and

      an image storage control that decodes control data from the video signal that specifies whether the image data is long-term data or short-term data, and stores the image data in the short-term buffer when the image data is short-term data, and stores the image data in the long-term buffer when the image data is long-term data.

23–24. (cancelled)

25. (original) A data signal embodied on a video conferencing carrier wave, the data signal comprising:

a picture identification number assigned sequentially to a picture;

a flag that indicates whether the data signal includes a number of long-term buffers value;

a picture property change indicator that indicates a change of image data between short-term data, long-term data, and unused data;

a number of buffers for remapping field specifying reallocation instructions;

a picture buffering mode that signals a way that a current image is to be stored, the way being at least one of as a long-term image or a short-term image; and

a picture buffer identification that signals a location where a current image is to be stored, the location being at least one of an index for a long-term buffer or an identification number for a short-term buffer.

26. (original) The data signal of claim 25 further comprising a number of long-term buffers value that specifies a maximum number of long-term buffers allowed for use by a decoder receiving the data signal.

27. (original) The data signal of claim 25 further comprising address information for changing picture properties, the address information including at least one of a difference of short-term picture identifier specifying a difference between a current short-term picture and a previous short-term picture, or a long-term picture index specifying an index for a long-term buffer.

28. (original) The data signal of claim 25 further comprising a long-term/short-term buffer indication, an absolute difference of picture identification, and a sign of difference of the absolute difference.